ecology and environment, inc.

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International Specialists in the Environment

MEMORANDUM

TO: Paul Doherty, EPA/DPO

FROM: Joseph M. Parish, E & E/TATM

THRU: Joe Chandler, E & E/TATL

DATE: April 17, 1992

SUBJECT: Site Assessment: Certain-Teed Transite Pipe
A.K.A Maline Creek, 600 St. Cyr Road, St. Louis, Missouri
TDD#: T07-9203-012
PAN#: EM00307SAA
EPA/OSC: Mark Roberts

cc: Mark Roberts, OSC, EP&R
Greg Reesor, RPM, Superfund Branch

INTRODUCTION

The Ecology and Environment, Inc., Technical Assistance Team (E & E/TAT) was tasked by the United States Environmental Protection Agency Emergency Planning and Response Branch (EPA/EP&R) to assess the former Certain-Teed Transite Pipe property at 600 St. Cyr Road, the adjacent property to the southeast, and the banks along Maline Creek to the southeast. The purpose of the assessment was to evaluate the extent of alleged asbestos contamination, and sample suspected asbestos containing materials. The assessment was performed on March 17, 1992.

The TAT documented that significant quantities of transite pipe scrap remained on site largely concentrated along the steep Maline Creek bank southwest of the former Certain-Teed property. It was evident that weathering was breaking down the scrap, and erosion was exposing additional scrap and to a lesser degree highly friable insulation material along the creek bank. Samples collected of transite pipe scrap and insulation showed high levels of asbestos fibers - over 70% by volume in five of the six samples collected.

SITE INFORMATION AND HISTORY

Recently, the site was brought to the attention of EPA through a congressional inquiry from the office of Congressman William Clay. Apparently, the inquiry was initiated through a citizen complaint.

The former Certain-Teed property at 600 St. Cyr Road is currently owned by P.G. Investments. Branch Metal Processing Company, owned by P.G. Investments, and Gateway Container Port, Inc., presently occupy the

site. The former GAF property at 9215 Riverview Blvd. is owned by Clark Properties of Hazelwood, Missouri. This property is occupied by the New Era Group, Riverview Industrial Services, and MacMillan-Blodell Building Materials.

The area around the properties is industrial/residential and is in the corporate limits of Bellefontaine and Riverview Neighbors. There are approximately 150-200 people residing in the immediate area and a nursing home 350 feet northwest of the site. There are no known wells in the area and all drinking water is supplied by the City of St. Louis Chain of Rocks Water Treatment Plant upstream from the site. Maline Creek empties into the Mississippi River approximately 1/2 mile from the site to the east.

Certain-Teed and its neighbor, GAF Corporation, manufactured asbestos containing transite pipe and sheeting and used the field between the properties as an open dump for scrap materials. Both facilities ceased operation in 1979. At this time, both companies hired consulting engineers to draw up closure plans for remediation to comply with the Missouri Solid Waste Management Law. The plans were approved by the Missouri Department of Natural Resources (MDNR) and the companies proceeded with the closure. Remediation activities included stabilization of the waste pile through seeding and constructing an on-site landfill, and constructing a rip-rap blanket at the foot of the creek bank. A site inspection in May of 1980 confirmed that the companies were in basic compliance. However, there was still broken pipe left exposed on the creek bank southeast of the Certain-Teed property.

In May of 1982, the Missouri Sewer District (MSD) initiated a cleanup through MDNR following a brush hog clearing project that exposed more transite pipe. The cleanup project was performed in August of 1982 and several loads of scrap were removed from the site and disposed at West Lake Sanitary Landfill. However, approximately 1000 square feet of transite pipe scrap material was left in the upper portion of the creek bank, according to MDNR reports (REF. 1).

Two more Site Inspections followed in May and June 1988 at both properties. These inspections were performed by the EPA, Environmental Monitoring and Compliance Branch (EMCM), Air Monitoring Section. During these inspections, transite pipe scrap material was visible along the bank, in the creek bed, and scattered around the properties. Samples were collected and analytical results indicated chrysotile and/or crocidolite asbestos in levels from 7 to 25% in all samples.

ON SITE ACTIVITIES

To assess the site, it was necessary to obtain access from the current property owners of both the former Certain-Teed facility and its neighbor, the former GAF facility (see site map). Access was granted verbally on Monday, March 16, and TAT made preparations and arrangements with the property owners to visit the site the following morning.

On March 17, TAT members Joe Parish and Dave Kinroth met with Wayne Weideman of Clark properties at the former GAF facility. Weideman would not sign an access agreement and would not allow samples to be collected or any video footage per instructions from Harold Clark, the property owner. The TAT was only allowed to perform a visual inspection of the property. TAT walked the area northwest of the old GAF building where a landfill had been constructed to bury exposed scrap (refer to the site map). TAT observed small scraps of what appeared to be sheeting exposed on the south foot of the landfill, but the mound appeared stable and had a heavy vegetative cover. There was a small waste mound east of the landfill near the railroad tracks that had piles of exposed scrap, some of which appeared to be a friable insulation material. There were scraps of materials strewn about a ditch south of the mound. Presumably, it was the same material as at the mound. The mound appeared to be the most significant problem on the property, but it was not extensive.

On completion of the visual site inspection, TAT proceeded to the adjacent former Certain-Teed property. There, they met with Mark Kootman of Branch Metal, Inc. which is presently occupying a portion of the property. Kootman was representing PG Enterprises, the present property owner. Kootman agreed to allow TAT to walk the site unescorted and collect samples and take video footage.

TAT walked around the property southwest of the buildings. TAT observed a small waste mound southeast of an empty above-ground storage tank similar in scope to the mound found on the GAF property (see the site map). Scrap material there appeared to be two types - a friable insulation material, and a hard non-friable material that appeared to be transite pipe scrap. At this time, TAT donned level C protective gear to begin the sample collection. Two samples were collected at this location, numbers 001 and 002 (see the attached table and site map).

Next, TAT walked along the upper and lower banks of Maline Creek. TAT observed large quantities of transite pipe scrap material scattered down to the creek bed and extending downstream to approximately the neighboring property boundary. The upper bank of the creek appeared to be eroding, exposing more transite pipe scrap. The scrap material appeared to derive from a berm built up along the edge of the upper creek bank, presumedly to cover the transite scrap. Sample number 003 was taken at this location (see site map). Transite pipe was scattered on both the near and far banks of the creek, as well as in the creek bed. A composite sample (number 004) was collected from material at these locations. The transite scrap appeared to be in two forms - scrap of the pipe itself, and scrap of the ring connectors that joined the pipe sections. The connectors were slightly friable. The pipe scrap was very hard and could only be broken by using a sledge hammer. In either case, fibers were observed sticking out of the weathered broken edges of pipe scrap.

After collecting sample 003 and 004, the TAT proceeded to walk the creek section that bordered the former GAF facility. No transite scrap was observed at this location. Rip-rap covered the bank side of the creek nearer the former facility. Only small amounts of what appeared

to be sheeting was visible in the rip-rap area. What appeared to be insulation material had been exposed by erosion at the upper bank of the creek. Both this material and the sheeting were sampled (sample numbers 005 and 006, see the site map for location). The insulation material was friable and particles became airborne during sample collection. The sheeting appeared hard, stable, non-friable, and was sparsely scattered throughout the rip-rap.

Before leaving the site, TAT contacted Kootman to inform him that the assessment was completed. Samples were labeled, packaged, and shipped to the EPA Lab in Kansas City for asbestos analysis. Cooling or use of preservatives with samples collected for asbestos is not required.

ANALYTICAL RESULTS

Samples were analyzed for chrysotile, amosite, crocidolite, tremolite, actinolite, and anthophylite, the six asbestos minerals used commercially. Positive results from the analysis report are listed in the table below. Chrysotile and crocidolite asbestos were found in every sample except numbers 005 and 006. Only chrysotile asbestos was detected in these two samples. Samples number 001 through 004 detected levels of asbestos from 85- to 90% by volume. Sample number 005 detected chrysotile asbestos at 85% and sample number 006 detected chrysotile at 20%.

The results confirmed the presence of quantities of asbestos on site. Asbestos is a known carcinogen, as established from criteria developed by the International Agency for Research on Cancer (IARC) and published by the National Toxicology Program in the Sixth Annual Report on Carcinogens (REF. 4). Both short-term and long-term exposure have been shown to increase the risk of several types of cancer and other chronic lung diseases. The primary hazard is through inhalation.

RESULTS TABLE, Activity 2-NOX07

NO.	LOCATION	DESCRIPTION	CHRYSOTILE	CROCIDOLITE
001	Waste pile near tank	Insulation	75%	15%
002	Waste pile near tank	Transite	70%	15%
003	Upper bank of creek	Transite	75%	15%
004	Creek bed	Transite	75%	15%
005	Upper bank of creek	Insulation	85%	0
006	Upper bank of creek	Sheeting	20%	0

CONCLUSION

The sample results indicate ACM are exposed at the Maline Creek area in a scenario that could potentially lead to a release, particularly with the quantity of material present. Through weathering and erosional processes, scrap material is being exposed along the creek banks. Some forms of the scrap are in a friable state, but it is evident that all forms of scrap material are breaking apart. Scrap is

accumulating on the creek bed where it is subjected to more intense weathering and a more efficient transport mechanism through Maline Creek. Maline Creek empties directly into the Mississippi River a short distance away. Particles from the more friable scrap materials may become airborne and present a potential inhalation hazard to humans. Evidently, the problem has intensified since the 1988 investigations.

ATTACHMENTS

References
Site Locator Map
Site Map
Photographic Record
Analytical results

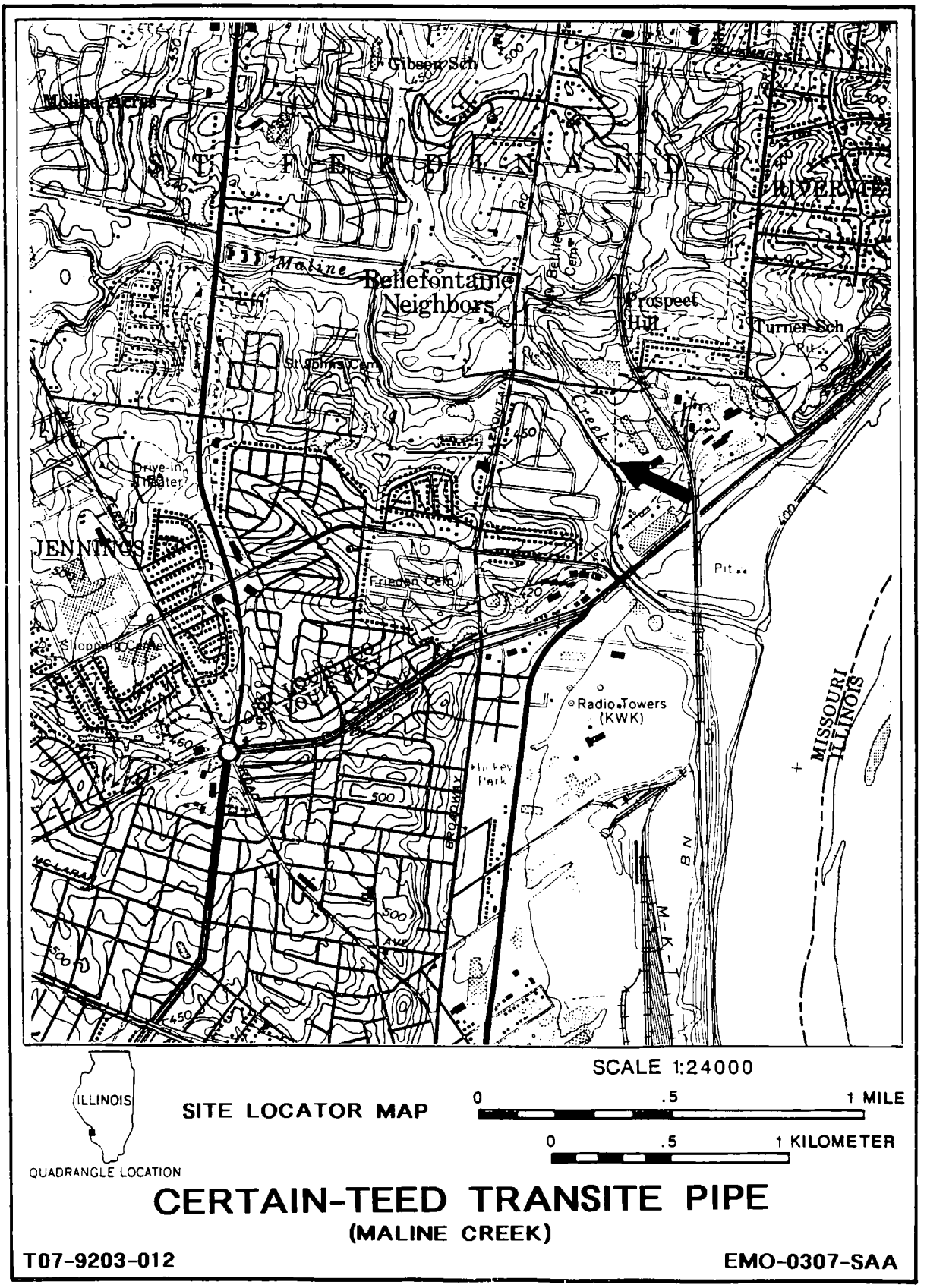
REFERENCES

1. August 24-28, 1984, Abandoned/Uncontrolled Hazardous Waste Site Investigation, Preliminary Assessment, Branch Metal Processing Company, Case # 534.918, Missouri Department of Natural Resources, St. Louis Regional Office.

2. 1988, Site Inspection: Certain-Teed Transite Pipe Plant, St. Louis, Missouri, United States Environmental Protection Agency, Environmental Monitoring and Compliance Branch (EMCM)

3. 1988, Site Inspection: GAF Transite Plant, St. Louis, Missouri, United States Environmental Protection Agency, Environmental Monitoring and Compliance Branch (EMCM)

4. U.S. Department of Health and Human Services, National Toxicology Program, Sixth Annual Report on Carcinogens, 1991 Summary. (Rockville, MD: Technical Resources, Inc., January 1992), pp. 27-33.



CERTAIN-TEED TRANSITE PIPE

(MALINE CREEK)

T07-9203-012

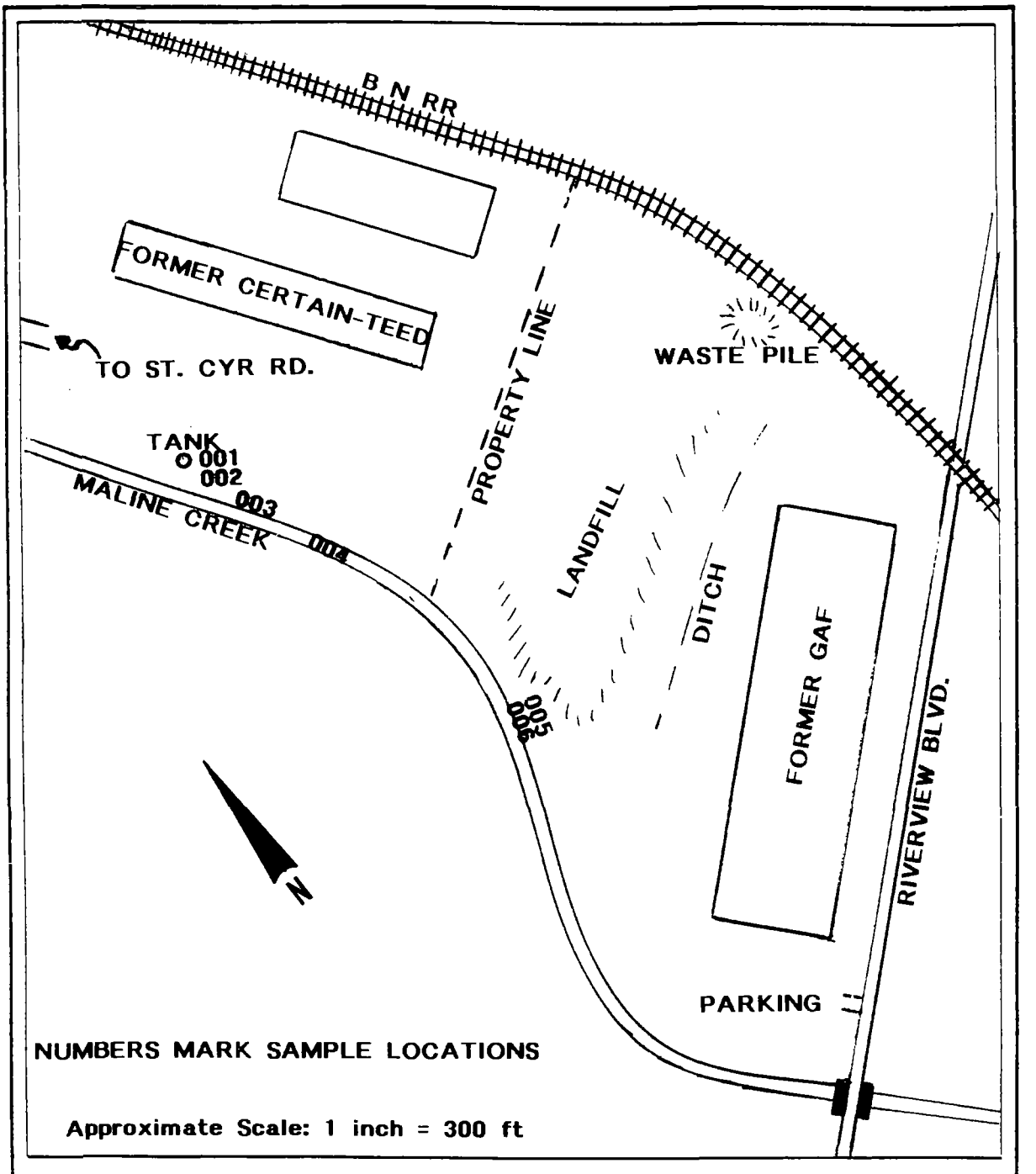
EMO-0307-SAA

CERTAIN-TEED TRANSITE PIPE

(MALINE CREEK)

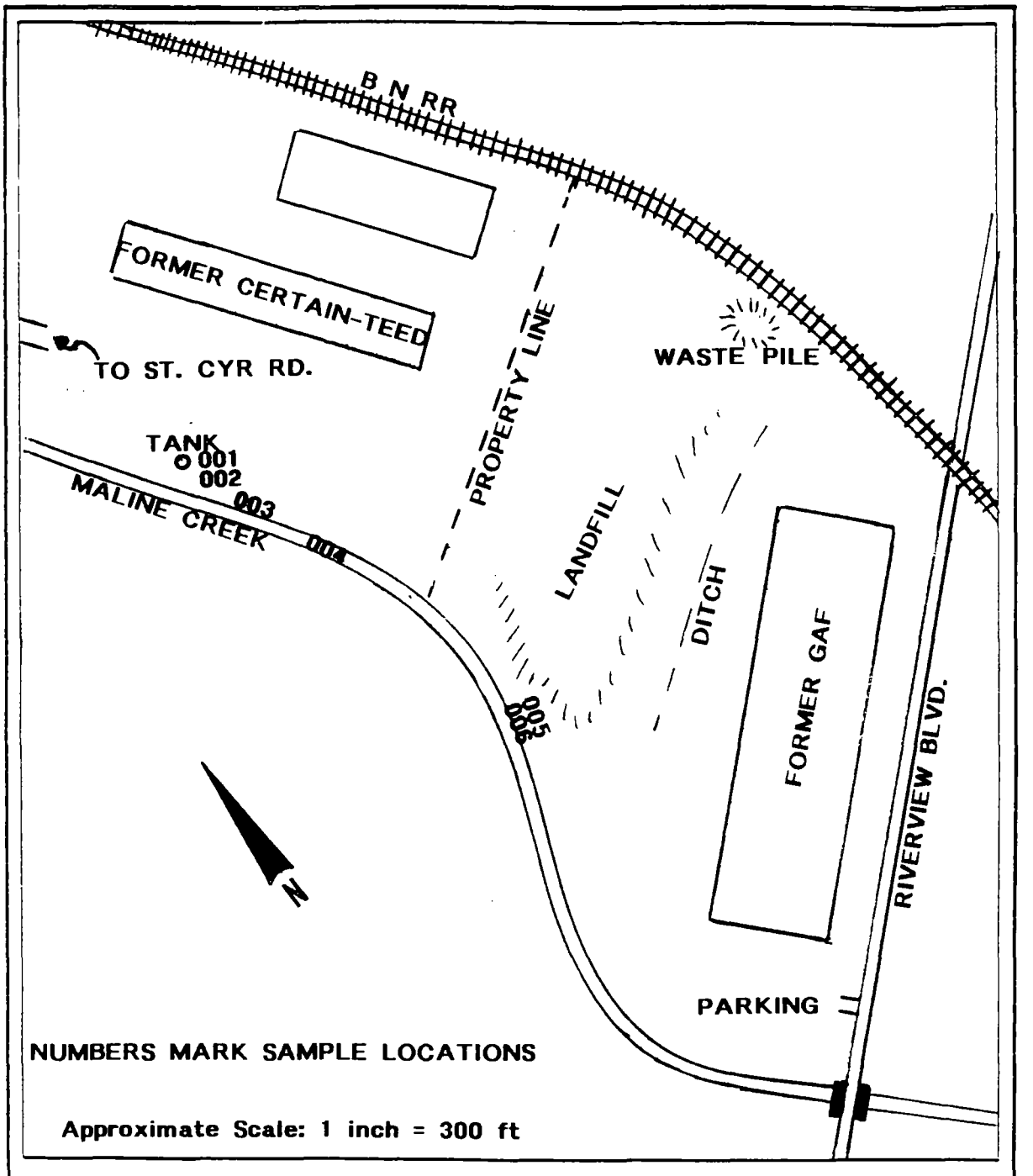
T07-9203-012

EMO-0307-SAA



CERTAIN-TEED TRANSITE PIPE SITE (MALINE CREEK)

T07-9203-012 SITE MAP EMO-0307-SAA



CERTAIN-TEED TRANSITE PIPE SITE (MALINE CREEK)

T07-9203-012 SITE MAP EMO-0307-SAA

Ecology and Environment, Inc.

Photographic Record

Client: EPA
Camera Make: Olympus OM77AF

E & E Job No.: ZT1071
Serial No. : 1047439

SITE NAME: Maline Creek
SITE LOCATION: St. Louis, MO
TDD/PAN No.: T07-9203-012/EMO-0307-SAA

Photographer: Joe Parish
Date/Time : 3/17/92/1215
Lens: Type: 50mm/normal
Serial No.: 1063023
Frame No. : 1
Direction : E
Comments :
South of former GAF, north bank of creek

Photographer: Joe Parish
Date/Time : 3/17/92/1217
Lens: Type: 50mm/normal
Serial No.: 1063023
Frame No. : 2
Direction : S
Comments :
North edge of creek, SW of Certain-Teed

Ecology and Environment, Inc.

Photographic Record

Client: EPA
Camera Make: Olympus OM77AF

E & E Job No.: ZT1071
Serial No. : 1047439

SITE NAME: Maline Creek
SITE LOCATION: St. Louis, MO
TDD/PAN No.: T07-9203-012/EMO-0307-SAA

Photographer: Joe Parish
Date/Time : 3/17/92/1220
Lens: Type: 50mm/normal
Serial No.: 1063023
Frame No. : 3
Direction : SE
Comments :
North bank, apparent insulation, sample 5 location

Photographer: Joe Parish
Date/Time : 3/17/92/1230
Lens: Type: 50mm/normal
Serial No.: 1063023
Frame No. : 4
Direction : SE
Comments :
North bank, sample 6 location

Ecology and Environment, Inc.

Photographic Record

Client: EPA
Camera Make: Olympus OM77AF

E & E Job No.: ZT1071
Serial No. : 1047439

SITE NAME: Maline Creek
SITE LOCATION: St. Louis, MO
TDD/PAN No.: T07-9203-012/EMO-0307-SAA

Photographer: Dave Kinroth
Date/Time : 3/17/92/1240
Lens: Type: 50mm/normal
Serial No.: 1063023
Frame No. : 5
Direction : NW
Comments :
Transite pipe and connectors, north creek bank south of former Certain-Teed

Photographer: Dave Kinroth
Date/Time : 3/17/92/1241
Lens: Type: 50mm/normal
Serial No.: 1063023
Frame No. : 6
Direction : NW
Comments :
Transite pipe and connectors, north creek bank south of former Certain-Teed

Ecology and Environment, Inc.

Photographic Record

Client: EPA
Camera Make: Olympus OM77AF

E & E Job No.: ZT1071
Serial No. : 1047439

SITE NAME: Maline Creek
SITE LOCATION: St. Louis, MO
TDD/PAN No.: T07-9203-012/EMO-0307-SAA

Photographer: Dave Kinroth
Date/Time : 3/17/92/1242
Lens: Type: 50mm/normal
Serial No.: 1063023
Frame No. : 7
Direction : NW
Comments :
Transite pipe and connectors, north creek bank south of former Certain-Teed

Photographer: Dave Kinroth
Date/Time : 3/17/92/1243
Lens: Type: 50mm/normal
Serial No.: 1063023
Frame No. : 8
Direction : NW
Comments :
Transite pipe and connectors, north creek bank south of former Certain-Teed

Ecology and Environment, Inc.

Photographic Record

Client: EPA
Camera Make: Olympus OM77AF

E & E Job No.: ZT1071
Serial No. : 1047439

SITE NAME: Maline Creek
SITE LOCATION: St. Louis, MO
TDD/PAN No.: T07-9203-012/EMO-0307-SAA

Photographer: Dave Kinroth
Date/Time : 3/17/92/1243
Lens: Type: 50mm/normal
Serial No.: 1063023
Frame No. : 9
Direction : NW
Comments :
Transite pipe and connectors, north creek bank south of former Certain-Teed

Photographer: Dave Kinroth
Date/Time : 3/17/92/1244
Lens: Type: 50mm/normal
Serial No.: 1063023
Frame No. : 10
Direction : NW
Comments :
Transite pipe and connectors, north creek bank south of former Certain-Teed

Ecology and Environment, Inc.

Photographic Record

Client: EPA
Camera Make: Olympus OM77AF

E & E Job No.: ZT1071
Serial No. : 1047439

SITE NAME: Maline Creek
SITE LOCATION: St. Louis, MO
TDD/PAN No.: T07-9203-012/EMO-0307-SAA

Photographer: Dave Kinroth
Date/Time : 3/17/92/1245
Lens: Type: 50mm/normal
Serial No.: 1063023
Frame No. : 11
Direction : NW
Comments :
Transite pipe and connectors, north creek bank south of former Certain-Teed

Photographer: Dave Kinroth
Date/Time : 3/17/92/1245
Lens: Type: 50mm/normal
Serial No.: 1063023
Frame No. : 12
Direction : NW
Comments :
Transite pipe and connectors, north creek bank south of former Certain-Teed

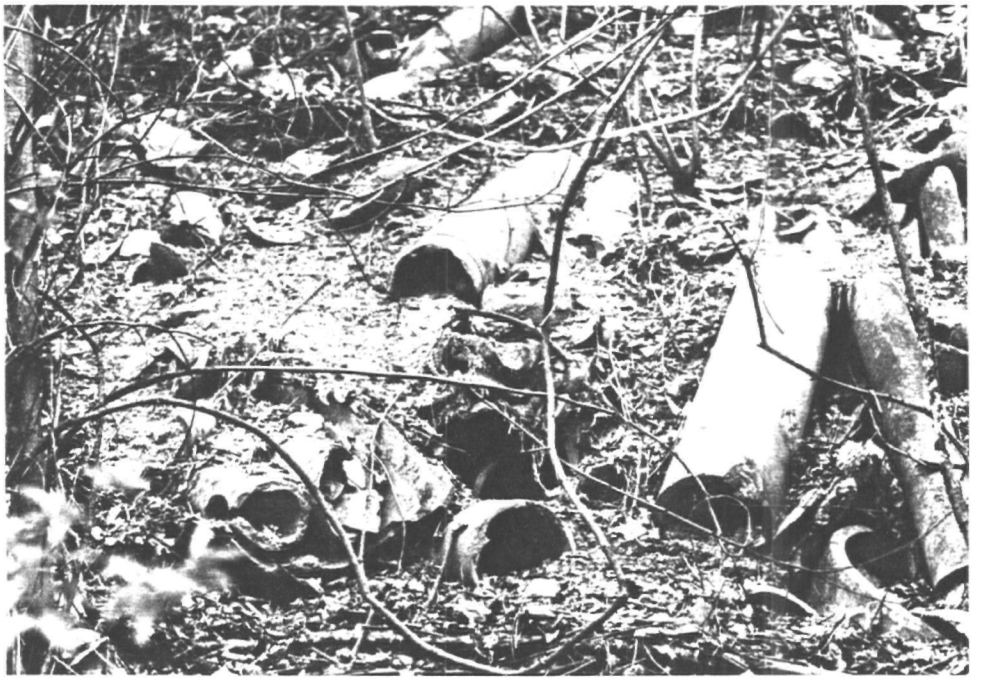
Ecology and Environment, Inc.

Photographic Record

Client: EPA
Camera Make: Olympus OM77AF

E & E Job No.: ZT1071
Serial No. : 1047439

SITE NAME: Maline Creek
SITE LOCATION: St. Louis, MO
TDD/PAN No.: T07-9203-012/EMO-0307-SAA



Photographer: Dave Kinroth
Date/Time : 3/17/92/1245
Lens: Type: 50mm/normal
Serial No.: 1063023
Frame No. : 13
Direction : NW
Comments :
Transite pipe and connectors, north creek bank south of former Certain-Teed

ANALYSIS REQUEST REPORT

FOR ACTIVITY: NOXO7

LABORATORY APPROVED DATA
PROJECT LEADER APPROVAL PENDING

ROBERTS, M.

03/23/92 15:47:27

ALL REAL SAMPLES AND FIELD Q.C.

* LABO APPROVED

FY: 92 ACTIVITY: NOXO7 DESCRIPTION: MALINE CREEK LOCATION: ST. LOUIS MISSOURI

STATUS: ACTIVE TYPE: SAMPLING - IN HOUSE ANALYSIS PROJECT: A36

LABO DUE DATE IS 4/17/92. REPORT DUE DATE IS 9/13/92.

INSPECTION DATE: 3/17/92 ALL SAMPLES RECEIVED DATE: 03/18/92

ALL DATA APPROVED BY LABO DATE: 03/23/92 FINAL REPORT TRANSMITTED DATE: 00/00/00

EXPECTED LABO TURNAROUND TIME IS 30 DAYS EXPECTED REPORT TURNAROUND TIME IS 180 DAYS

ACTUAL LABO TURNAROUND TIME IS 5 DAYS ACTUAL REPORT TURNAROUND TIME IS 0 DAYS

SITE CODE: SITE:

SAMP. NO.	QCC	M	DESCRIPTION	SAMPLE STATUS	#	CITY	STATE	AIRS/ STORET LOC NO	LAY- SECT ER	BEG. DATE	BEG. TIME	END. DATE	END. TIME
001		S	INSULATION MATERIAL FROM BERM PILE	1		ST. LOUIS MO	MISSOURI			03/17/92	11:38	/ /	:
002		S	TRANSITE PIPE PIECES FROM BERM PILE	1		ST. LOUIS MO	MISSOURI			03/17/92	11:43	/ /	:
003		S	TRANSITE PIPE PIECES FROM N CREEK BANK	1		ST. LOUIS MO	MISSOURI			03/17/92	11:55	/ /	:
004		S	TRANSITE PIPE PIECES FROM CREEK BED	1		ST. LOUIS MO	MISSOURI			03/17/92	12:11	/ /	:
005		S	INSULATION MATERIAL FROM N CREEK BANK	1		ST. LOUIS MO	MISSOURI			03/17/92	12:20	/ /	:
006		S	SHEETLIKE CONCRETE-SHINGLES	1		ST. LOUIS MO	MISSOURI			03/17/92	12:37	/ /	:

EXPLANATION OF CODES AND INFORMATION ON ANALYSIS REQUEST DETAIL REPORT

SAMPLE INFORMATION:

SAMP. NO. = SAMPLE IDENTIFICATION NUMBER (A 3-DIGIT NUMBER WHICH IN COMBINATION WITH THE ACTIVITY NUMBER AND QCC, PROVIDES AN UNIQUE NUMBER FOR EACH SAMPLE FOR IDENTIFICATION PURPOSES)

QCC = QUALITY CONTROL CODE (A ONE-LETTER CODE USED TO DESIGNATE SPECIFIC QC SAMPLES. THIS FIELD WILL BE BLANK FOR ALL NON-QC OR ACTUAL SAMPLES):
- A = TRUE VALUE FOR CALIBRATION STANDARD
- B = CONCENTRATION RESULTING FROM DUPLICATE LAB SPIKE
- C = MEASURED VALUE FOR CALIBRATION STANDARD
- D = MEASURED VALUE FOR FILED DUPLICATE
- F = MEASURED VALUE FOR FIELD BLANK
- G = MEASURED VALUE FOR METHOD STANDARD
- H = TRUE VALUE FOR METHOD STANDARD
- K = CONCENTRATION RESULTING FROM DUPLICATE FIELD SPIKE
- L = MEASURED VALUE FOR LAB DUPLICATE
- M = MEASURED VALUE FOR LAB BLANK
- N = MEASURED VALUE FOR DUPLICATE FIELD SPIKE
- P = MEASURED VALUE FOR PERFORMANCE STANDARD
- R = CONCENTRATION RESULTING FROM LAB SPIKE
- S = MEASURED VALUE FOR LAB SPIKE
- T = TRUE VALUE OF PERFORMANCE STANDARD
- W = MEASURED VALUE FOR DUPLICATE LAB SPIKE
- Y = MEASURED VALUE FOR FIELD SPIKE
- Z = CONCENTRATION RESULTING FROM FIELD SPIKE

M = MEDIA CODE (A ONE-LETTER CODE DESIGNATING THE MEDIA OF THE SAMPLE):
- A = AIR
- H = OTHER (DOES NOT FIT ANY OTHER CATEGORY)
- S = SOLID (SOIL, SEDIMENT, SLUDGE)
- T = TISSUE (PLANT & ANIMAL)
- W = WATER (GROUND WATER, SURFACE WATER, WASTE WATER, DRINKING WATER)

DESCRIPTION = A SHORT DESCRIPTION OF THE LOCATION WHERE SAMPLE WAS COLLECTED

AIRS/STORET LOC. NO. = THE SPECIFIC LOCATION IDENTIFICATION NUMBER FOR EITHER OF THESE NATIONAL DATABASE SYSTEMS, AS APPROPRIATE

DATE/TIME INFORMATION = SPECIFIC INFORMATION REGARDING WHEN THE SAMPLE WAS COLLECTED
- BEG. DATE = DATE SAMPLING WAS STARTED
- BEG. TIME = TIME SAMPLING WAS STARTED
- END DATE = DATE SAMPLING WAS COMPLETED
- END TIME = TIME SAMPLING WAS COMPLETED
- NOTE: A GRAB SAMPLE WILL CONTAIN ONLY BEG. DATE/TIME
  A TIMED COMPOSITE SAMPLE WILL CONTAIN BOTH BEG AND END DATE/TIME TO DESIGNATE DURATION OF SAMPLE COLLECTION

OTHER CODES:
- V = VALIDATED

ANALYTICAL RESULTS/MEASUREMENTS INFORMATION:

COMPOUND = MGP (MEDIA-GROUP-PARAMETER) CODE AND NAME OF THE MEASURED CONSTITUENT OR CHARACTERISTIC OF EACH SAMPLE

UNITS = SPECIFIC UNITS IN WHICH RESULTS ARE REPORTED:
- C = CENTIGRADE (CELSIUS) DEGREES
- CFS = CUBIC FEET PER SECOND
- GPM = GALLONS PER MINUTE
- IN = INCHES
- I.D. = SPECIES IDENTIFICATION
- KG = KILOGRAM
- L = LITER
- LB = POUNDS
- MG = MILLIGRAMS (1 X 10-3 GRAMS)
- MGD = MILLION GALLONS PER DAY
- MPH = MILES PER HOUR
- MV = MILLIVOLT
- M/F = MALE/FEMALE
- M2 = SQUARE METER
- M3 = CUBIC METER
- NA = NOT APPLICABLE
- NG = NANOGRAMS (1 X 10-9 GRAMS)
- NTU = NEPHELOMETRIC TURBIDITY UNITS
- PC/L = PICO (1 X 10-12) CURRIES PER LITER
- PG = PICOGRAMS (1 X 10-12 GRAMS)
- P/CM2 = PICOGRAMS PER SQUARE CENTIMETER
- SCM = STANDARD CUBIC METER (1 ATM, 25 C)
- SQ FT = SQUARE FEET
- SU = STANDARD UNITS (PH)
- UG = MICROGRAMS (1 X 10-6 GRAMS)
- UMHOS = MICROMHOS/CM (CONDUCTIVITY UNITS)
- U/CC2 = MICROGRAMS PER 100 SQUARE CENTIMETERS
- U/CM2 = MICROGRAMS PER SQUARE CENTIMETER
- 1000G = 1000 GALLONS
- +/- = POSITIVE/NEGATIVE
- # = NUMBER

DATA QUALIFIERS = SPECIFIC CODES USED IN CONJUNCTION WITH DATA VALUES TO PROVIDE ADDITIONAL INFORMATION ON THE REPORTED RESULTS, OR USED TO EXPLAIN THE ABSENCE OF A SPCIFIC VALUE:
- BLANK = IF FIELD IS BLANK, NO REMARKS OR QUALIFIERS ARE PERTINENT. FOR FINAL REPORTED DATA, THIS MEANS THAT THE VALUES HAVE BEEN REVIEWED AND FOUND TO BE ACCEPTABLE FOR USE.
- I = INVALID SAMPLE/DATA - VALUE NOT REPORTED
- J = DATA REPORTED BUT NOT VALID BY APPROVED QC PROCEDURES
- K = ACTUAL VALUE OF SAMPLE IS < VALUE REPORTED
- L = ACTUAL VALUE OF SAMPLE IS > VALUE REPORTED
- M = DETECTED BUT BELOW THE LEVEL OF REPORTED VALUE FOR ACCURATE QUANTIFICATION
- O = PARAMETER NOT ANALYZED
- U = ACTUAL VALUE OF SAMPLE IS < THE MEASUREMENT DETECTION LIMIT (REPORTED VALUE)

ANALYSIS REQUEST DETAIL REPORT ACTIVITY: 2-NOX07

LABORATORY APPROVED DATA
PROJECT LEADER APPROVAL PENDING

COMPOUND	UNITS	001	002	003	004	005
SB02 CHRYSOTILE, BULK	%	75	70	75	75	85
SB03 AMOSITE, BULK	%	0.0	0.0	0.0	0.0	0.0
SB04 CROCIDOLITE, BULK	%	15	15	15	15	0.0
SB05 TREMOLITE, BULK	%	0.0	0.0	0.0	0.0	0.0
SB06 ACTINOLITE, BULK	%	0.0	0.0	0.0	0.0	0.0
SB07 ANTHROPHYLLITE, BULK	%	0.0	0.0	0.0	0.0	0.0
ZZ01 SAMPLE NUMBER	NA	001	002	003	004	005
ZZ02 ACTIVITY CODE	NA	NOX07	NOX07	NOX07	NOX07	NOX07

ANALYSIS REQUEST DETAIL REPORT ACTIVITY: 2-NOX07

LABORATORY APPROVED DATA
PROJECT LEADER APPROVAL PENDING

COMPOUND	UNITS	006				
SB02 CHRYSOTILE, BULK	%	20				
SB03 AMOSITE, BULK	%	0.0				
SB04 CROCIDOLITE, BULK	%	0.0				
SB05 TREMOLITE, BULK	%	0.0				
SB06 ACTINOLITE, BULK	%	0.0				
SB07 ANTHROPHYLLITE, BULK	%	0.0				
ZZ01 SAMPLE NUMBER	NA	006				
ZZ02 ACTIVITY CODE	NA	NOX07				

LABORATORY APPROVED DATA
PROJECT LEADER APPROVAL PENDING

ACTIVITY NOXO7 MALINE CREEK

THE PROJECT LEADER SHOULD CIRCLE ONE - STORET, AIRS, OR ARCHIVE.

CIRCLE ONE: STORET AIRS ARCHIVE

DATA APPROVED BY LABO FOR TRANSMISSION TO PROJECT LEADER ON 03/23/92 15:47:27 BY _____.